



FINIA

FRASER ISLAND NATURAL INTEGRITY ALLIANCE

Newsletter

Sustaining the natural integrity of Fraser Island together

November 2019

Inside this edition:

Page

- Report from the 8th K’gari Conference1
- Developing a Master Plan for Central Station.5
- Protecting and restoring K’gari’s pandanus6
- K’gari-Fraser Island Discovery Centre.....9
- Butchulla Ranger Biosecurity Training9
- Leave only footprints.....10
- FIDO Happy Valley Weed Trip11
- Helping to Win the War on Weeds13
- Dates for the Diary14
- Funding Opportunities14

Welcome to FINIA’s final newsletter for 2019. It’s been another busy period for the island, her people and dedicated volunteers. K’gari needs you all.

So, in case no one said ‘thank you,’ please know that your efforts are appreciated and vital to sustain this incredibly special place.

A special acknowledgement to our newsletter contributors. It’s only by capturing our knowledge and sharing it with others that we truly make progress.

The Editor

Community, Culture, Collaboration and Conversations – The 8th Biennial K’gari (Fraser Island) Conference



The 8th Biennial K’gari (Fraser Island) Conference was going to be a challenge for many. Without ‘Fearless Leader,’ John Sinclair AO, at the helm, there were some massive boots to fill. John would have been very proud, because the team behind the conference including FIDO’s Maria Miller, the Butchulla Aboriginal Corporation’s Mellissa Foley and Jade Gould and the University’s of the Sunshine Coast’s Kim Walker, ably supported by John’s son, Keith Sinclair and a wonderful team of FIDO supporters, convened an excellent conference that inspired, educated and enabled some great conversations about K’gari.

Veronica Bird chaired the opening session on 'Community', introducing Aunty Joyce Bonner to welcome delegates to Country before a video message from the Queensland Minister for the Environment, Leeanne Enoch.



Steve Biddulph encouraged participants to get out into the wilderness

Leading social psychologist and advocate for wilderness experiences, Steve Biddulph, then provided the opening presentation for the day, talking about human development and its four storeys – body, emotions, intellect and spirit. Steve explained that the 'spirit' is our connection to the outside or 'the wild' and is the way we are supposed to live; connected to nature, its cycles and the wisdom of our extended families through parents, uncles and aunts and ancestors. Sadly, modern society often disconnects us from the wild and the nurture of an extended family, which is leaving many young people in trouble. Statistically, boys are three times more likely to develop a drug or alcohol problem or have an early death and nineteen times more likely to end up in prison. Young women (<15 years) now have a 1:5 chance of developing an eating disorder, 1:5 will have had one or more sexual partners and 1:5 take anti-anxiety medication. Steve stressed the importance of families taking time with their young people to relax and experience the wild together.

Dr Fiona Foley followed with a thought-provoking presentation providing a Butchulla interpretation of first contact in her talk and short film; *All roads lead to Takky Wooroo*. "The ship rose out of the sea like cloud and kept close to the land for three to four days. Who are these strangers, and where were they going?" Fiona referred to British arrogance, scientific racism, historical amnesia and the annihilation of culture in the 1850s referring to the use of opium, the Susan River and K'gari massacres. Dr Foley proposed that it was time to move forward and mark the massacre sites with a memorial and for the development of a Badtjala Research Centre.

Opening session two, on 'Culture,' Jade Gould introduced Christine Royan who provided a history of the Butchulla Aboriginal Corporation and the long fight for K'gari and Butchulla Country resulting in the Native Title determination for K'gari on 24 October 2014 and the Land and Sea Claim #2 over the Great Sandy Strait and the mainland which is pending a decision later this year. Christine talked about the humble beginnings of the group which started with a bank balance of \$80 and initially operated out of Kyleigh Currie's house. Christine spoke about the importance of partnerships and collaboration and reflected on some of the BAC's key achievements:

- Celebrating 25 years of World Heritage
- The K'gari Dreaming documentary with Channel Ten
- The Queensland Government-funded Butchulla Land and Sea Rangers
- Junior Ranger pilot program within schools
- Mentoring for Butchulla Community Rangers
- Fee-for-service work with QPWS
- Butchulla temporary positions with QPWS on K'gari
- Cultural mapping and recording
- Cultural awareness programs
- The appointment of the Education and Communications and BAC Project Officers

Rose Barrowcliffe then talked about her work, reading 'between the lines' as she uncovered the Butchulla history contained in the K'gari Research Archive. Rose revealed that within the collection's 1605 reference materials, a search of the term Butchulla had revealed only nineteen references or 1.4% of the collection, suggesting that this was an ontological crisis for her research with the Butchulla "almost nowhere to be seen." Widening her research to include the terms 'Aboriginal' or 'Indigenous' had resulted in 168 references (4.2%). Rose compared the challenge to that of "women and people of colour" that had resulted in the New York Times series "Overlooked No More" with a series of obituaries about remarkable people whose deaths, beginning in 1851, went unreported in The New York Times. Rose commented that some problems related

to archivist knowledge, for example with some metadata incorrectly referenced as Gubbi Gubbi instead of Butchulla. But for Rose, it was like putting together the clues of people, place and time to give the who, where and what of Butchulla history contained within the collection. Rose stated the urgency of recording this story with the loss of knowledge holders. She closed with a comparison to artist Titus Kaphar and 'painting hierarchy' within historical images.

Rowan Foley, CEO of the Aboriginal Carbon Foundation, talked about *Poverty in Paradise* and how carbon economics had been used in Cape York to generate community prosperity. With the Australian Government currently offering ~\$12/tonne of carbon and \$17-\$25 available through the voluntary market, carbon farming offered opportunities for aboriginal people to practice their environmental, social and cultural responsibilities. Rowan talked of Paolo Friere, author of *Pedagogy of the Oppressed*, which is an approach to education that aims to transform oppressive structures by engaging people who have been marginalised and dehumanised by drawing on what they already know. Carbon farming requires audits to be undertaken and ACF has been working with partners to develop an Indigenous evidence-based verification tree, empowering communities to create a process that is rigorous, independent, and acceptable to the mainstream.



Rowan Foley talks about generating income through the carbon economy

Prof. Jamie Shulmeister provided an update on the work the University of Queensland had been undertaken on dune geomorphology with the age structures of the dunes (across two transects from Dundubara to Awinya and Dilli Road) and also the history contained within the dunes of the island's lakes. K'gari's dunes are associated with high sea levels, with the coast at low sea levels extending 90Km further out to sea. He stated that the lakes reflected both rainfall and sea-level changes on K'gari, but that there had always been lots of freshwater on K'gari. He talked about a giant lake that would once have included Lake Boomanjin and Sheep Station Lagoon, but this gradually reduced in size as sea levels dropped and the lake edge dunes started to infill (about 28,000 years ago). Jamie also suggested that historically there would have been lakes near Moon Point (under the current patterned fens) from 40 to 12,000 years ago.

Moving into the afternoon 'Collaboration' session, chaired by Sue Sargent, a series of short presentations included:

Dr Ian Muirhead, a retired plant pathologist who now volunteers on the bitou bush eradication program with Queensland Parks and Wildlife Service and Biosecurity Queensland. Ian stressed the significance of this weed, which invades and dominates native habitat. He talked about the methodology the team used with GPS surveys, helicopter surveys (and follow up) and more intensive 'emu parades' to focus on previously recorded sites and noted that drones/remote-sensing would make it easier to access more inaccessible areas. Finally, Ian suggested that while eradication on bitou bush was possible, we need to keep up the pressure of surveillance.

Dr Lindy Orwin talked about the Cooloola Bioblitz, 'Where science comes to you.' Lindy highlighted the bioblitz approach and the focus it brought to an area enabling experts and citizen scientists to work alongside. The 2018 bioblitz had resulted in 1400 records to be uploaded to iNaturalist and a further 1000 records already this year. Robert Whyte had discovered 78 species of spiders to date. Two moths have also been rediscovered with a Boronia moth and Kauri moth larva (99.4% confidence in identification) which were thought to be extinct. A new species of *Allocasuarina* was also recorded. Lindy highlighted the importance of 'moments' such as the discovery of giant 15m trees and ground parrots observed at dusk and cross-discipline collaboration with artists.

Dr Bradley Smith decoded the Human-Dingo Conflict on K'gari and examined interventions to date in addressing problem dingo-human interactions with 160 dangerous interactions between 2001 and 2015.

Bradley suggested that education has been crucial, with 73% of incidents occurring during the day and peaking in April, with a 'hot spot' around Eurong. He reflected that many problems were associated with sub-adult males – with 78% acting alone and 11% operating as a pair. 45% of incidents occurred while walking, 12% while running. 76% resulted in minor injuries. For incidents involving children, while adults were present 89% of the time for 47% of the time, these were more than five metres away from their children. Dr Smith suggested a range of strategies that could be used to further reduce conflict, including:

- Reducing speed limits
- Having an annual 'Dingo Week.'
- Establishing public no-go dingo zones
- An increased presence of rangers and volunteers to improve education
- Early warning systems/live cam
- Non-lethal strategies
- Shift the mind-set
- Increased penalties for interfering with wildlife
- Promoting appropriate behaviour better
- More research and a better understanding of dynamics.

Finally, Dr Gabriel Conroy talked about the baseline genetic research that had been undertaken of the K'gari dingo population. The species has ancient canid lineage and has been on K'gari for more than 4500 years (and up to 16,000 years) with a low number of 'founder' events, i.e. a small number of common ancestors. Gabriel talked about the species' contrary protection status, i.e. protected on the island while considered a pest elsewhere, and the dingo's profound cultural importance and role as an ecosystem regulator. The objective of the research was to compare K'gari's dingo population to the mainland population. In the study, 175 viable dingo scat samples were provided by QPWS, with 264 samples also sourced from the southern part of the island and mainland. The K'gari dingo's genetic profile was very different from the mainland dingo, and although the population size was adequate, genetic diversity was low (statistically lower than the mainland) indicating a lower adaptation potential. The results were as expected, as the K'gari population is small with no exchange with the mainland.

Chaired by Professor Tim Wess, the final session for the day was a Q&A forum with questions from the floor posed to a panel of Steve Biddulph, Veronica Bird, Jade Gould, Dr Bradley Smith, Lyn Wallace (World Heritage Unit, Department of Environment and Science), Linda Behrendorff (QPWS), Peter Shooter (FIDO), Prof. Ian McNiven (Monash University), Dr Kim Walker (University of the Sunshine Coast) and Colin Zemek (Fraser Coast Regional Council). Questions included:

Q: Does the island need a cultural history centre?

A: The Central Station redevelopment will provide K'gari with a cultural history centre, although cultural history is also being incorporated into the Kingfisher Interpretative Centre and should be incorporated into display materials island-wide.

Q: Why have the ranger talks disappeared?

A: Linda Behrendorff was an interpretative ranger, but unfortunately, these roles were made redundant by the Newman Government. Things are gradually improving with Jenna Tapley as Public Contact Ranger and the recent appointment of Danniele Tobane as the BAC Communication and Education Officer.

Q: Why isn't the use of chemical toilets by campers outside designated areas enforced?

A: Although these are a recommendation, the use of chemical toilets can't currently be enforced. Uptake by tag-a-long has however been much better. The rangers do undertake regular 'health checks' and agree that bush toileting is an issue. The Queensland Minister for the Environment is fighting for improvement.

Q: Why aren't we doing more waste management on K'gari cleaning up the transfer stations and historical dumping sites (some of which contain asbestos)?

A: The lack of a hard stand at Happy Valley, the use of contractors and the presence of asbestos were raised. Also, FIDO has offered to do some vegetation screening, but there has been no further action. Concerns will be forwarded to both the waste and environment (asbestos) teams for a response, but complainants were asked to voice their concerns directly to Fraser Coast Regional Council.

Q: Does the panel have concerns about biosecurity on the island?

A: Yes – there are some real concerns. For example, there are no washdowns, no policing with reports of turf and plants brought onto the island and numerous examples of weeds, pests and pathogens introduced to the island including Abrus (crab eye creeper), Easter cassia, Jamella (Pandanus leaf-hopper) and Myrtle rust. The Butchulla Aboriginal Corporation (BAC) suggested that they would like to play a more public role in biosecurity education and to be at the table for discussions about solutions.

Q: Can we reduce 4WD transport and damage to the island?

A: Options include resting areas to spell the land and enable it to restore naturally. Concerns were again raised about Hook Point to Dilli and impacts to shorebirds – this was to be addressed by a previous government commitment to upgrade the inland/forestry road, but this commitment was never met. FIDO also has concerns about erosion and sand movement, for example into Yidney Lake. Ross Waldron has been researching transport options based on fieldwork in Cooloola.

Q: Is the panel concerned about the number of injuries and deaths from dingoes on the island? Are they being killed for our mistakes?

A: The number of dingo issues only relate to a small portion of the K’gari dingo population. The Department has been strictly enforcing social media infringements – taking the approach of managing people first. QPWS have multiple priorities including weeds and biosecurity, visitor management and dingoes, where they have been trying to change the public’s perception. Jade suggested that in some cases Butchulla relationships (with the dingo treated as a camp dog) may have jeopardised the dingo on K’gari, making dingo less afraid to approach people.

Q: How many traditional cool burns would it take to generate carbon credits?

A: At this time there is no recognised methodology, (although this could be an opportunity if a method was developed), to assess cool burns for carbon, the methodology being used up in the Cape is for savannah fires. Recognised that cool burns have multiple other benefits and have recommenced on K’gari.

Q: How do we reduce stress in Australian schools?

A: Steve suggested that we need to reduce anxiety and the issue of intergenerational trauma (particularly for Aboriginal people who have suffered 200 years of trauma), which is impacting on our youth. He suggested that K’gari is a model of what the world needs. To heal, we need to believe in the human race, to have something to hand over to our kids, and K’gari is a model of hope, appreciation and stewardship.

Q: Is it beyond us to come up with a scheme whereby the BAC can benefit from the island?

A: A \$5 levy on visitors to the island was suggested (supported by the Fraser Island World Heritage Advisory Committees). The Butchulla are sick of being reliant on Government and want long-term solutions to provide opportunities and self-reliance to the Butchulla community. The BAC hope that decisions like Timber Creek will impact on decision making and policy in the future, enabling compensation for cultural loss on more just terms.

This report was compiled by Sue Sargent, Chair, Fraser Island Natural Integrity Alliance

Developing a Master Plan for Central Station

For decades, Central Station has been a tourism destination on K’gari. Once the centre of the forestry industry (and a school) when there was logging on K’gari, the site has housed a display explaining the development of K’gari and its various flora and fauna and a picnic area. But the location also has cultural significance to the Butchulla people.

As the nature conservation agency responsible for managing Queensland’s national parks and protected areas, the Queensland Parks and Wildlife Services and Partnerships (QPWS&P) recognised that a



Site visits, cultural mapping and community consultation were all an important part of the joint planning process

comprehensive and considered master plan for Central Station will ensure that this pivotal location can act as both a valued asset for local community members and as a place for visitors to gain knowledge, understanding and a memorable cultural experience.

The Master Plan Design team comprised QPWS&P, a TCL-led team including Gregory Burgess Architects, Gresley Abas, David Lancashire Design, Sanmore and Associates with Rider Levett Bucknall and representatives from the Butchulla Aboriginal Corporation.

Three site visits were conducted on K'gari with cultural mapping undertaken to assist with the development of the draft Master Plan and BAC-led

community consultation at an event held at Dayman Park in September.

With the draft Master Plan now signed off by the BAC Directors, the plan is now being finalised by QPWS &P. While the Master Plan's delivery will be staged over a number of years, one of the first tasks will be to stabilise and restore buildings on site which will create employment for Butchulla participants.

Article developed in conjunction with Chantel Van Wamelen

Protecting & Restoring K'gari's Pandanus

In record time, the introduced insect responsible for Pandanus dieback, *Jamella australiae*, spread across the eastern shores of Fraser Island, leaving a wake of destruction. In less than seven years, the death toll of *Pandanus tectorius* went from a few hundred plants in 2010 to over 30,000 dead Pandanus across 70 kilometres by 2015. In late 2019, deaths are now approximately 50,000. *Jamella* has now reached the western shores, where significant populations, particularly in the NW end of the island are also under threat.

In no other location where *Jamella australiae* invaded had the death toll been so high and the hopper so quick to spread. Why was the death so high on K'gari? For one simple reason, the main predator of the Planthopper (a micro-egg parasitoid wasp) was not released due to concern "of another biocontrol gone wrong (e.g. the cane toad) (FIDO MOONBI [130](#)). Other areas where this micro wasp was promptly released demonstrate an average spread of *Jamella* at 1 km per year. Fraser Island displayed ten times that rate of spread!

The micro wasp (*Aphanomerus nr. pusillus*) relies entirely on *Jamella australiae* for survival and will prevent up to 95% of *Jamella* from even hatching. Without the micro wasp present, *Jamella australiae* numbers soared and moved across the eastern shores of the Island like a plague of locusts, feeding exclusively on Pandanus, and reaching numbers in excess of 1 million on single individual mature trees! As each Pandanus died, adult *Jamella* would then simply fly to the next Pandanus and repeat, their numbers growing exponentially along with secondary dieback contributing insects as the death toll rose ever higher.

So, what's the problem? They are just plants! Why and how would dead Pandanus harm K'gari's wildlife? Especially dingos?

Pandanus tectorius have a unique morphology, function, and life cycle traits, unlike any plant - not a palm, cycad, or fern, not like, nor related to any other trees apart from those in the Pandanaceae family. They have a long history in Australia, evolving on ancient Gondwana, in an area now known as Queensland, from ancestors long lost, and long before humankind. Traditional custodians along eastern Australia, (and throughout the Pacific Ocean, Asia through to West Africa) have long farmed Pandanus, as they provide an abundant food source, fibres for weaving, medicinal and ceremonial properties, and shelter from sun, rain, and wind, traditionally used as a living hut. As a result, K'gari had an abundance of Pandanus, more highly concentrated than anywhere in Coastal Eastern Australia, with large populations and pure stands, many greater than a hectare, kilometres from the high tide mark in the high hind dunes! I firmly believe these large

hind dune populations were planted by Butchulla, Ngulungbara and Dulingbara ancestors to provide shelter capable of supporting entire tribes, mainly through cyclone and prolonged wet period events (picture living community centres).

Making a link to dingoes

Well, due to the long history on this continent, a plethora of insects and other invertebrates have evolved to be dependent on Pandanus (many entirely host-specific). These, in turn, support a plethora of predators including spiders, geckoes, skinks, birds, rodents, frogs, snakes, bats, possums, etc. The loss of habitat resulting from the death of 50,000 Pandanus has dramatically reduced the abundance of biodiverse lifeforms relying directly and indirectly on Pandanus.



Melomys with young in a pandanus

Let's consider just one group that Pandanus support, rodents.

Native rats (*Rattus spp.*), and *Melomys* species are very common in Pandanus in healthy coastal ecosystems (especially on K'gari) due to the safe, protected habitat Pandanus provide, having dense spikey leaves and fortress-like prop roots. The edible roots, fruit, and abundance of long-lived seeds occurring under female trees provide an abundant and permanent food source for our furry friends. These rodents, perpetually overflowing from Pandanus into the surrounding vegetation, combined with the goannas, carpet pythons and other snakes which feed on them, all provide a substantial part of a dingo's diet. Dingo scat research suggests that rodents occurred in between 8.9 and 39 % of scat samples ([Behrendorff et al., 2016](#)).

50,000 Pandanus would have supported an estimated 10,000 and 20,000 rodents. Ignoring all other wildlife, if K'gari dingoes ate one rodent per day, the rodents produced by those 50,000 dead Pandanus would potentially support somewhere between 54 and 110 dingoes. K'gari's dingo population is estimated to fluctuate between 100 and 200. Although dingoes consume a broad diet, there is no doubt that the unprecedented loss of K'gari's Pandanus populations will have impacted on their available food source.

No other plant occurring in SEQ's Coastal Ecosystems provides food and habitat for such an abundance of invertebrates and wildlife, a food chain that extends out to the surrounding vegetation. On K'gari, the animal at the top of that food chain is the Dingo.

Dieback management into the future

The wasps captive-reared and [released](#) (FINIA 2015) at 37 sites across the eastern shores of K'gari as a volunteer with QPWS assistance in 2015-2016, were impressively effective to halt the rapid and widespread mortality occurring at the [time](#). Yet, in common with other areas where *Jamella australiae* has naturalised and have not managed, dieback continues, albeit slower, a decline of Pandanus populations continues.

One-off wasp releases are not the end of Pandanus dieback prevention methods, but a crucial beginning. For ecological, geographical and climatic reasons, localised extinction of the micro wasp occurs. When this happens, *Jamella australiae* rapidly increase, causing ongoing cases of dieback. Twice yearly monitoring of Pandanus populations and dieback preventative wasp translocations where *Jamella australiae* has naturalised is the [least](#) that should be done to protect these socially, culturally, and environmentally plants; and the abundance of wildlife they support!

With adequately informed ecological management strategies, Pandanus dieback can be prevented. Many stakeholders across SEQ and northern NSW faced with this issue have inaccurately believed chemical pesticide is the only option, but this is not the case. Broad-scale chemical treatment ('treat them all approach') has been applied across many parts of SEQ, resulting in dramatic reductions of beneficial predators and non-target herbivorous invertebrates.



Surveying Deepwater National Park with QPWS staff with 50-80% losses

During surveys across SEQ, I have encountered many insects which rely exclusively on Pandanus. In five years of active field research and dieback mitigation work across SEQ, dozens of host-specific relationships and dieback-contributing secondary insects have documented for the first time. Well over a dozen of them have not even been named. Through my work and field research, I have also confirmed that the chemical pesticide (Imidacloprid) used to control *Jamella australiae* also kills virtually all insects that feed on Pandanus (except for a few pest species; scale and the long-tailed mealybug and detritus-feeding insects such as cockroaches, millipedes, and silverfish). Treated plants may look healthy, but they are sterile of life for around two years. This has certainly caused localised

extinction of multiple host-specific insects in some heavily treated areas in SEQ. The use of pesticide should only be considered a last resort for highly stressed and significant plants that are sure to die.

Existing and developing cases of dieback have consistently been prevented at numerous locations across SEQ, through applied ecologically informed mitigation techniques; understanding plant health, insect and predator lifecycles and interactions, utilising the highly effective parasitoid wasp (*Aphanomerus nr. pusillus*), and small-scale hands-on leaf strip work (assessing and treating the cause rather than the symptom).

Unfortunately, the promotion of leaf stripping to prevent dieback across SEQ has led to many wasted man hours and the misdirection of limited financial resources. With informed plant health and predator/prey assessments, leaf stripping is effective to prevent dieback; when *Jamella* and secondary insect numbers are elevated, and growth crowns are damaged and rotting. However, removing too many leaves (over stripping) in such cases will cause the central growing point of crowns to drop off and perish.

Leaf stripping healthy (non-infested) Pandanus removes and adversely affects a range of invertebrate predators (especially arachnids) and the parasitoid wasp, also unnecessarily displacing rodents' nests, birds' nests, gecko eggs and other beneficial fauna. The unique morphology and habits of Pandanus and the specific interconnected relationships between *Jamella australiae*, additional secondary (dieback contributing) insects and predators require a high level of commitment, research and experience to make ecologically sound and effective dieback mitigation decisions.

As a society, we've accidentally caused this issue through the transport of Pandanus with *Jamella australiae* and other insects as stowaways, and I believe it is our ethical and moral obligation to do what we can to mitigate the losses and damage to the biodiversity of our beloved (and legally protected) coastal ecosystems. No other coastal natural resource management issue has or is causing such widespread and devastating losses to biodiversity, and yet, is so under-researched and left unmitigated. Loss to habitat and biodiversity would only be paralleled by fire in the coastal zone, which has taken a significant toll on SEQs' Pandanus populations and Coastal Vine Thicket and Littoral Rainforest Communities, particularly in the coastal islands of SEQ. A Federal Government [recovery plan](#) was released in February 2019 for these communities, yet the fire management principles outlined (fire exclusion), for the most part, are yet to be reflected in on-ground management.



Butchulla Rangers leaf-stripping Pandanus on K'gari

I'm eagerly hoping the growing team of Butchulla Land and Sea Rangers will accept an offer made to share all dieback management information, and look forward to again working alongside QPWS rangers and providing all the management insights and lessons learned in the four years since the first fateful collaborative wasp releases on K'gari.

To follow the Pandanus preservation work being done across SEQ (and beyond) and learn management principles as well as learn about the myriad of life forms relying on Pandanus including a mounting number of undescribed-new to science insects, follow this Facebook Page: “Pandanus Dieback Education and Information Page”: <https://www.facebook.com/pandanusprotection/>

Article contributed by Joel Fostin

K’gari-Fraser Island World Heritage Discovery Centre

The new K’gari-Fraser Island World Heritage Discovery Centre will be based at SeaLink’s Kingfisher Bay Resort. The Discovery Centre is a joint project of the University of the Sunshine Coast and Kingfisher Bay Resort. The aim is to develop a visitor experience that promotes K’gari’s UNESCO World Heritage status and highlights its unique environmental and cultural values.

World Heritage Interpretation will focus on four themes that are significant to the Island



Exceptional natural beauty
World Heritage List
criterion VII



Significant ongoing geological processes
World Heritage List
criterion VIII



Significant ongoing biological process
World Heritage List
criterion IX



Conservation of this amazing place

Located at a convenient place for visitors accessing the Great Sandy National Park, the Centre will focus on the World Heritage value of the Island, including unique features such as long sandy beaches, tall forests growing in sand, perched lakes, significant dune systems, coloured sands and K’gari’s flora and fauna. The Butchulla people are also recognised for their central role in K’gari’s story and the role they play in caring for the Island today. European history of logging and sand mining also feature, along with the fight to protect the Island.

To date, stakeholders have been consulted, an interpretation plan has been drafted that includes the proposed content and visual images, and a conceptual design for the refurbishment of the building (an ex-childcare centre) has been developed. USC design students are working on a series of information panels which will tell K’gari’s World Heritage story.

The Butchulla Aboriginal Corporation has endorsed the plan, and Auntie Gayle Minniecon is providing advice on the project. The World Heritage Discovery Centre will complement the Cultural Centre planned for Central Station.

Contributed by Dr Kim Walker, University of the Sunshine Coast

Butchulla Land and Sea Ranger Biosecurity Training – Part 2

The partnership between the Butchulla Land and Sea Rangers (BLSRs), Department of Agriculture and Fisheries (DAF) and the World Heritage Unit within the Department of Environment and Science (DES) is continuing to strengthen.

Following a successful \$30,000 grant received through the Australian Plant Biosecurity Science Foundation earlier this year, an MOU was struck between DAF and DES to increase the capacity of the BLSRs to detect, monitor and report priority environmental exotic plant species and disease threats on K'gari.

Initial training was commenced with the BLSR's during May that primarily focused on forest biosecurity, forest priority pests and reporting, myrtle rust identification and sample collection, with two field trips undertaken to the Mt Coot-tha Botanic Gardens and Tallebudgera Valley.



Butchulla Land and Sea Rangers join staff from the Department of Agriculture and Fisheries for training and myrtle rust identification on K'gari

The second phase of training has since taken place on K'gari during the first week of August (5th – 9th). During this time on Country, the team visited a number of areas, stretching from Eurong, to Boorangoora, Central Station, Kingfisher Bay Resort, to Eli Creek and as far north as Orchid Beach.

Myrtle rust was detected in many of the areas monitored with the overall forest health observed and recorded. During this time on K'gari, the group also met with FIDO representatives at their nurseery at Dili Village. This was a positive opportunity for shared learning and to commence discussions on potential future collaborations.

During the World Heritage Forum held in Canberra during September, Senior BLSR Corey Currie, Dr Geoff Pegg (DAF) and Alana Hazel (WHU) jointly presented the project. It was received with high praise and hopefully will encourage further collaborations within other World Heritage properties across Australia.

The partnership has also been successful in securing a further \$30,000 funding to continue on the current project, which will extend the overall project out until 2021.

In addition, New South Wales has also received the same funding amount, which will open the doorway to working with some of the Indigenous groups in the Gondwana World Heritage area.

This will also allow further opportunities to transpire, including collaborations to take place over the two programs and information sharing across Rangers.

Article developed in conjunction with Butchulla Aboriginal Corporation, the Department of Agriculture and Fisheries and the World Heritage Unit.



Senior Ranger, Corey Currie, making the first BLSR identification of myrtle rust

Leave only footprints

Just south-west of Happy Valley there is a rarely-traversed sand dune called Mellong.

David Anderson accompanied FIDO's Chris Breitenbach while he checked the boundary of the unallocated State Land (USL) so we could determine whether weeds from the township had spread south-west into the National Park. (They hadn't).

While there, it was evident that they were not the only ones leaving footprints in the sand, with easily recognised prints that belonged to birds and lizards. Then there was this intriguing set of prints (pictured) of some unidentified creature. It was not a dingo pup.

David thought it might have been an echidna off on an early morning walk, or more likely, a midnight stroll to avoid predators. Whatever it was, it seemed to have had a purpose in mind.



Which of K'gari's animals left this track in the sand? Photo: David Anderson.

It had walked its way up and over the dune.

There is some debate about the origin of the advice to those who venture into environmentally sensitive areas: "Take only photographs; leave only footprints". A variation of that is to "Take only memories". Whatever the origin, whatever the variation, it's relevant advice for those who venture on to the World Heritage-listed Fraser Island.

David confesses he left his footprints on Mellong dune while he took this and other photographs. However, he was confident that the winds that formed the sand blow would have quickly erased the footprints leaving no evidence of his passing.

"The photos I took though will help with my memories of the adventure for years to come. I have been left to wonder what creature had ventured so determinedly across the open dune. Perhaps someone knowledgeable might recognise the footprints?"

Article contributed by David Anderson

FIDO Happy Valley Oct-Nov Weeding Trip

Six FIDO volunteers (Chris Breitenbach, Larry Hohenhaus, Geoff Carwardine, Sandra Naidoo, Navin Naidoo and Su Dawson) joined leader, Peter Shooter for the recent Happy Valley trip from 27 October to 2 November. They also had the pleasure of the company of Jodie Rainbow, Genevieve Rainbow, Louise Roberts and Blayde Foley from the Butchulla Aboriginal Corporation for three days, Tuesday to Thursday.

The two main target species for the trip were crab's eye (*Abrus precatorius subspecies africanus*), and Easter cassia (*Senna pendula variety glabrata*). These have been prioritised over Lantana as a range of biological agents are weakening, but not killing lantana, whereas Abrus and cassia have no biological agents containing their proliferation.

Both these species have been targeted intensively since 2014, and are now present at very low levels on land under our control in and around the village.

Wherever possible, plants are hand pulled. Quite large cassia can be pulled. Small Abrus can be pulled with care taken not to break the root off, as it regrows. Larger cassia and other woody weeds are cut low to the ground and a herbicide applied to the butt. The team have always used 100% glyphosate product applied with a small hand held spray bottle, but are now trialling a dab on gel called Vigilant as an alternative to glyphosate for cut and squirt/paste.

Where Abrus is located, the first task is to remove all the seeds. Where Abrus can't be pulled, it is spot sprayed with a small hand held spray bottle, or a back pack for larger plants. The herbicide used is 1.5% glyphosate product mixed with a red dye for visibility. Abrus is the only species that is controlled with foliage spray.

One of the crew, Chris, GPS marks Abrus plants that has either seeded or are likely to have seeded, for emergent follow up on subsequent trips and workers use fluoro pink flagging tape to mark mature Abrus plants for follow up, which is essential to mop up new emergents. The team's aim is to bring the level of flowering and subsequent seed production to as close as possible to zero, which has now been achieved in large areas. This trip we carried out follow up operations on all the areas that FIDO has responsibility for inside the wongari (dingo) fence, both sides of the road extending North West of the dump area, a large area South of the dingo fence from the Yidney Rocks Road grid on both sides of road and in the second valley North of the Ambulance Station.

The Unallocated State Land (USL) we operate on is approximately 250ha. Having made great inroads in and around the village, and in the Eastern regions of the USL, we are now in the process of exploring the more remote areas. This trip our search extended to the Western and Southern borders of the USL. Most of these regions are in good condition with very few weeds. Cassia is present in small numbers across the landscape, and we found Abrus on top of a sand dune in the South West corner. We have previously located Abrus in the North West corner as well. Locating and eliminating outliers is essential if we are to prevent these weed plants extending into the National Park. Further exploration of the more remote regions of the USL will be an ongoing part of our 2020 program.

We have been locating and removing Northern Australian Umbrella Trees (*Schefflera antinophylla*) since FIDO commenced their Happy Valley program. There is a sizable population in the general Western region of the USL, with in excess of 30 mature trees this trip. More effort will be put into these as time permits.



The hard-working FIDO and BAC weed management volunteers tackling weeds at Happy Valley

There is also a small but increasing population of another Northern Australian tree, Genus Terminalia, around Happy Valley. Peter is hoping to get flowers/fruit to have it properly identified. The first adult tree was removed this week at the Yidney dump area, although others have been identified inside the town area.

Two more small broad-leafed pepper (*Schinus terebinthifolius*) trees were located this trip and destroyed. One larger one awaits David Anderson from Eurong with his chain saw. Peter is aware of some others growing in stunted form in a mixture of weeds East of Sailfish, which are also on the team's "to do" list.

Just when you think they are all gone, a few more basket asparagus (*Asparagus aethiopicus*) turn up. This includes the biggest one ever encountered at the Yidney dump. It was well over a metre across and very lush. It and others were destroyed.

The valley south of the village from the main beach entrance up towards the Yidney Rocks Road is a disaster area. It is heavily infested with para grass, Singapore daisy, siratro, broad-leafed Pepper and Easter cassia and other weeds all intertwined. In large sections there are no native plants.

The team's immediate concern is the para grass (*Brachiaria mutica*) which is extending its range Westward and engulfing native vegetation. This area requires a rehabilitation management plan, and the task is massive. In the short term, in 2020 FIDO will drag the Para Grass back off the adjoining native plants and spray it with an herbicide to try to halt the expansion. This is a massive project that has not yet commenced.

Peter would like to thank all the FIDO volunteers and the Butchulla workers for their great effort this week. In places, it was extremely hard work, especially navigating very steep unstable dunes and thick vegetation. Commiserations to Navin who was bitten by something that made his ankle swell up and discolour badly. (Luckily, we had a doctor in the house!). Also, to poor Su who waded into thick para grass in pursuit of a cassia plant, and disappeared into a hole but luckily managed to get herself out. And Geoff who thrashed/swam his way through swampy head high para grass while taking a short cut. We won't be doing that again!

Through dogged perseverance we are making great inroads into our target weeds in Happy Valley. Eliminating the seed source, especially of Abrus, is our highest priority. A big thank you to the Butchulla workers for joining us again this trip. Apart from all the work you did, you were great company and it is a privilege for us to work on country with you. We hope to have you back with us next year.

Article submitted by Peter Shooter, Fraser Island Defenders Organisation

Helping to Win the War on Weeds

Have you noticed plants in your gardens escaping and spreading into other parts of your garden or neighbourhood? You can help stop this spread by removing these invasive plants wherever you see them and planting better alternatives that benefit the garden's diversity and reduce the possibility of weedy plants invading.

Check the health of plants before bringing them into your garden, or you may spread diseases like Myrtle rust, which is now prevalent on the Fraser Coast. For further details about this rust, contact your local nursery, Council or DAF.

Brazilian Cherry (*Eugenia uniflora*) - Flowering now!

Environmental weed

Origin: South America

Dispersal: Spread by birds, small mammals and water.

Location: Found in older style gardens along foreshore and riverside areas. Often used as an ornamental garden plant.

Description: A medium shrub, with a dense rounded habit. Grows 3-6m tall. Oval leaves, with pointed tips and red new growth. Succulent ribbed orange/red fruits. Forms dense stands out-competing native plants.

Control: Control with a registered herbicide like glyphosate. Cut and paste stumps within 20 seconds.



Article contributed by Juliet Musgrave, Fraser Coast Regional Council

Thank You to Our Sponsors!

As many of you would be aware, the Fraser Island Natural Integrity Alliance (FINIA) is a non-incorporated, not-for-profit, umbrella organisation for its partners. As a non-incorporated organisation, we rely on our partners to support our activities for the Fraser Island (K'gari) World Heritage site, with no dedicated funding to support our meetings, administration and barge transfers.

Without this generosity, FINIA's activities would be far more challenging, so we would like to acknowledge the following sponsors for their generous support:



AUTOMATTIC

Fraser Coast Regional Council – who provide a venue for our meetings.

Department of Natural Resources, Mines and Energy – catering sponsor for the August meeting

Kingfisher Bay Resort Group – who support many of our on-ground activities with subsidised barge fees.

Automattic - sponsors of the FINIA Website – helping us to make K'gari (Fraser Island) a better place.

Add to this our amazing contributors, volunteers and donors—a special place attracts truly special people. Thanks to you all for making FINIA work.

Dates for the Diary

What: Fraser Island Natural Integrity Alliance Meetings
Where: Town Hall, Maryborough
When: Tuesday 12 November
For: For all FINIA members and supporters. Quarterly meetings are a great chance to catch up and share what's happening or should be happening on Fraser Island (K'gari).
Cost: Free (although we always appreciate a sponsor for morning tea and/or afternoon tea).
More info: Please contact the Chair, Sue Sargent on 0429 462 041 or email contactfinia@gmail.com.

What: Bush Regeneration and Monitoring
Where: Happy Valley, Fraser Island
When: Dates for 2020: 15 March to 21 March, 17 May to 23 May, 16 August to 22 August and 18 November to 21 November (Sunday to Saturday).
For: Peter Shooter leads these trips to help tackle the heavy weed infestation in and around Happy Valley. A group of up to 8 will share "Kurrawa", a comfortable holiday house in the centre of Happy Valley. The group will work to contain a particularly aggressive weed with poisonous seeds, *Abrus prectorius* Var. *Africanus* that is heavily impacting on the vegetation but isn't found anywhere else on Fraser Island. As the *Abrus* is coming under control, the team will be increasingly turning to eliminate large woody weeds Easter Cassia and Lantana. Fitness is needed to carry heavy chemical backpack sprays across steep terrain.
Cost: \$300 (\$200 for concessions) to subsidise costs.
More info: Please send any questions to weeding@fido.org.au. To make a booking via Eventbrite, please click on the link for the date(s) of interest above. For concessions, please pay the full \$300 and then apply for a \$100 refund from FIDO.

Funding Opportunities

What: Community Sustainability Action Grant – Round 4 Heritage Conservation
For: Funding is now available for projects that facilitate the conservation of, access to, and community engagement with places entered in the Queensland Heritage Register. Grants up to \$100,000 (ex GST) are available. Applications will be accepted from owners of places entered in the Queensland Heritage Register or not-for-profit organisations that have the responsibility to manage such places.
When: Applications close 4pm on 2 December 2019.
Email: csagrants@des.qld.gov.au
Phone: For more information, please call the grant program office on (07) 3330 6360.
Website: <https://www.qld.gov.au/environment/pollution/funding/community-sustainability>

What: Gambling Community Benefit Fund
For: One-off grants of up to \$35,000 (inc. GST) for not-for-profit organisations to help provide community services or activities that benefit the Queensland community. To increase access to funding, the GCBF five funding rounds a year with the next one being with Round 104.
When: Round 104 opens on 1 November and closes at 11.59pm on 29 February 2020.
Email: cbf@treasury.qld.gov.au
Phone: (07) 3247 4284
Website: <http://www.justice.qld.gov.au/corporate/sponsorships-and-grants/grants/community-benefit-funding-programs>

What: Norman Wettenhall Foundation—Small Environmental Grant Scheme
For: Projects that enhance or maintain the vitality and diversity of the Australian natural living environment. Objectives of the Small Environmental Grants Scheme (up to \$10K) are flora and fauna conservation and threatened mammal conservation with one or more of the

following: monitoring/recording data, community education, community capacity building (training) and research/science.

When: Opens 2nd December 2019 (funding in February 2020)
Phone: (03) 5472 1316 - Elizabeth (Beth) Mellick, Executive Officer
Email: beth@nwf.org.au
Website: <http://www.nwf.org.au/>

What: Australian Geographic Society Sponsorship

For: Founded by Dick Smith, each quarter up to \$15,000 is made available for Australian Geographic Society Project Grants. Funding provided by the Society for Project Sponsorship targets all four Project Categories: Science, Community, Adventure and Environment. The society also offers seed grants between \$500 and \$3000.

When: Applications are now taken throughout the year for sponsorship rounds.
Phone: (02) 9263 9825
Email: society@ausgeo.com.au
Website: <http://www.australiangeographic.com.au/society/sponsorship/2013/11/apply-for-sponsorship>

What: The Mullum Trust

For: Supports projects which have significant, ongoing or catalytic environmental outcomes. Grants are available from \$100 to \$10,000. Projects with specific localised environmental outcomes are preferred, although projects which are locally based but have far-reaching impacts are also encouraged.

When: Ongoing
Phone: Mr Ryan Neoh on (03) 9671 6658
Email: rneoh@deloitte.com.au
Website: <http://thetrusteeforthemullumtrust.myob.net/>